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August 11, 2004

Martin Navarrete  
Carlsbad Field Office  
4021 National Parks Highway  
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**Subject: Revision and resubmittal of Corrective Action Response to CBFO Accelerated Corrective Action Report 04-033 Revision 1 – ED-026-2004**

Please find attached a revised BNFL Inc. Corrective Action Plan in response to CBFO accelerated CAR 04-033 Revision 1 received under CBFO Letter CBFO:QA:MPN:GS:04-1696 dated August 9, 2004. This revision incorporates comments and clarifications as discussed by teleconference on August 11, 2004 to our submitted corrective actions on pages 1, 3 and 5 of the Corrective Action Plan.

- A statement was added to page 1 to clarify the actions taken in Corrective Action 1 also replace and address Remedial Actions 2, 3, and 5 from CAR 04-032.
- Additional text was added to page 3, Corrective Action 3, second sentence to clarify that preventive actions applied to all future waste streams, including those described in EDF-909, Revision 3.
- A statement was added to page 5, Correction Action 6 to clarify that the procedure changes would be submitted to CBFO for review and approval.

This revised Corrective Action Plan is submitted for your review and approval.

Please contact me if you have any further questions or require additional information regarding this matter at 208-557-7062 or by email address [edumas@bnflinc.com](mailto:edumas@bnflinc.com).

Sincerely,

A handwritten signature in black ink, appearing to read "Elvin Dumas".

Elvin Dumas, Quality Assurance Manager  
Advanced Mixed Waste Treatment Project

040810



Cc:

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ED-025-2004

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**Immediate Actions:**

BNFL Inc. has suspended data entry into the WWIS pending resolution of this condition adverse to quality.

**Remedial Actions:**

The following Remedial actions have been taken or identified for completion by BNFL Inc. in response to CBFO CAR 04-032 and CBFO CAR No. 04-033 Revision 1.

The following Remedial actions have been taken in response to Items 1, 2 and 5 from CAR 04-033 R/1 Block # 10

Block 10, Action 1: "Locate and place into configuration control the list of 6751 drums originally part of the 3100m3 project's for First and Second Stage Sludges (WSP INW216) and the list of 6083 drums originally part of the 3100m3 project's for Building 374 Sludges (WSP INW218). A copy of this list must be provided to the CBFO."

Block 10, Action 2: "Provide documented evidence to the CBFO of the traceability of these lists to the original sampling populations and efforts."

Block 10, Action 5: "Determine the impact of this condition adverse to quality on waste containers that have been shipped to WIPP."

The remedial actions below also replace and address Remedial actions 2, 3, and 5 from CBFO CAR 04-032

Remedial Corrective Action Response to Block 10, Actions 1, 2 and 5:

1. BNFL Inc. has conducted a review of all containers from Waste Streams BNINW216 and BNINW218 that were identified in the handover of the above ground inventory received on December 31, 2002 and identified the drums that were originally part of the 3100m3 sample population. These were then compared to identify those containers held in BNFL above ground inventory that were not part of the 3100m3 project's sample population. This review was documented and resulted in the issuance on July 20, 2004 of BNFL Inc. Report Number BNFL-5232-RPT-TRUW-19, Revision 0 "Lot Population Determination for Waste Stream Profiles BNINW216 and BNINW218." This analysis was completed and documented through the following actions:
  - a) BNFL Inc. requested through AMWTP Request for Information 2004-04, a list of container identification numbers that comprised the 3100m3 project population of above ground inventory subject to random sample selection for waste streams WSP INW216 and WSP INW218. BBWI Engineering Design File EDF-909, Revision 3, "Transuranic Waste Sampling Plan for the Idaho National Engineering and Environmental Laboratory", effective 11/9/00 includes Table 1 "Summary of Target Waste Streams at the INEEL" which identifies the quantity of the population available for sampling of these two waste streams.
  - b) BNFL Inc. received a list of containers for each waste stream (i.e. WSP 216 and WSP 218) used to support WSP INW216 and WSP INW218, and the TRIPS database report, TCR 1-023 dated June 22, 2000 which was used to identify the available population in order to validate the traceability of the original container population identification numbers for these two waste streams. All container numbers were in the INEEL "IDRF" format.
  - c) After the original container population lists were validated against the TRIPS TCR 1-023 report, a comparison was completed against the BNFL Inc. inventory of waste received in the handover on December 31, 2002. The waste containers on the BNFL Inventory of waste were identified by their INEEL "IDRF" numbers. The BNFL Inc. comparison to the original population lists was then completed using the INEEL "IDRF" container format. A separate list was created from this comparison for each waste stream.

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**Remedial Actions (continued)**

d) After the definitive list of containers had been identified that were on both lists, (the Original lot list and the BNFL inventory list), the containers were then traced to their current BNFL container number. From this comparison, BNFL Inc. evaluated which containers were currently certified or shipped to determine which containers were not traceable to the original lot lists. This review concluded in the identification of the total of seventy-four WSPF 216 and twenty-nine WSPF 218 containers that have been shipped to WIPP that were not included in the original container sampling population during the 3100m3 project. This list is included in BNFL-5232-RPT-TRUW-19.

e) The results of these BNFL Inc. analyses were included as configuration controlled Appendices A, B and C of BNFL-5232-RPT-TRUW-19. Additional Attachments supporting the results reported as Appendices A, B and C have also been included as configuration controlled lists in BNFL-5232-RPT-TRUW-19.

f) BNFL-5232-RPT-TRUW-19 was internally reviewed and approved, and transmitted to the NE-ID Contracting Officer for transmittal to the CBFO on July 20, 2004. CBFO review of this report resulted in the incorporation of comments and issuance BNFL-5232-RPT-TRUW-19 Revision 2, on July 30, 2004 adding new Appendices D and E that identify containers remaining in the AMWTP Inventory and Traceable to the Original Lot lists for each BNINW216 and BNINW218.

g) BNFL Inc. has reviewed preliminary sampling results for these two waste streams to evaluate the impacts from the disposal of the containers identified in BNFL-5232-RPT-TRUW-19 Appendix C, at the WIPP Facility. BNFL Inc. has issued technical reports, BNFL-5232-RPT-TRUW-21 R/0, Evaluation of Characterization Data Associated with 74 AMWTP Containers of Rocky Flats First/Second Stage Sludge Waste and BNFL-5232-RPT-TRUW-22 R/0, Evaluation of Characterization Data Associated with 29 AMWTP Containers of Rocky Flats Building 374 Sludge Waste.

ACTION 1 items (a) through (f) COMPLETED: BNFL-5232-RPT-TRUW-19 R/0 was issued on July 20, 2004. Revision 1 was issued on July 29, 2004 to incorporate editorial comments and add clarifications. Revision 2 was issued on July 30, 2004 to add Appendices D and E.

ACTION 1 item (g) COMPLETED ON August 9, 2004 with the issuance of BNFL-5232-RPT-TRUW-21 R/0, Evaluation of Characterization Data Associated with 74 AMWTP Containers of Rocky Flats First/Second Stage Sludge Waste and BNFL-5232-RPT-TRUW-22 R/0, Evaluation of Characterization Data Associated with 29 AMWTP Containers of Rocky Flats Building 374 Sludge Waste.

The following Remedial actions have been taken in response to Items 3 and 4 from CAR 04-033 R/1 Block # 10

Block 10, Action 3: "Physically or administratively segregate the actual BNINW216 and BNINW218 containers that were not available for sampling from the remaining containers within those waste streams."

Remedial Corrective Action Response to Block 10, Action 3:

2. BNFL-5232-RPT-TRUW-19 Revision 2 provides the administrative segregation and control of BNINW216 and BNINW218 containers that were not available for sampling. BNFL Inc. is identifying the lists of remaining containers for these waste streams that will then be attached to BNFL Inc. sampling plans as remaining populations of containers subject to random sample selection for solids analysis. For each waste stream, a definitive list has been produced of containers that can be traced back to the original 3100m3 project lists identified as "Lot 1", and which are still available at AMWTP for shipment to WIPP. These definitive lists are included in BNFL-5232-RPT-TRUW-19 Revision 2, as Appendix D, WSPF BNINW216 "Containers in Remaining Inventory and Traceable to Original Lot List", and Appendix E, "WSPF BNINW218 Containers in Remaining Inventory and Traceable to Original Lot List".

ACTION 2 COMPLETED: July 30, 2004

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### Remedial Actions (continued)

Block 10, Action 4: "Determine if this condition adverse to quality applies to any other waste streams or waste stream lots."

#### Remedial Corrective Action Response to Block 10, Action 4:

3. BNFL Inc. does not currently have any other approved waste streams authorized for certification that are impacted by this condition. Procedure revisions addressed in the Preventive Action of this Corrective Action Plan will identify and implement controls to prevent this condition adverse to quality for other waste streams in the future, including the additional waste streams described in EDF-909 Revision 3. The provisions to be added to the procedural controls will include the development of definitive populations available for sampling, as part of sampling plans to be implemented for each waste stream. These actions to preclude recurrence for future waste stream management are addressed in Corrective action # 6 of this Corrective Action Plan in response to Item 7 from Block 10 of CAR 04-033 R/1.

**ACTION 3 COMPLETED:** August 9, 2004

#### Investigative, Root Cause and Preventive Actions:

4. BNFL Inc. has contracted an Independent Consulting firm to conduct a formal investigation and causal analysis. The results of this analysis will be evaluated by the Waste Programs Manager, and the Site QA Manager to determine if additional Preventive actions will be required. This corrective action plan will be updated with the Root cause and any additional actions accordingly.

**COMPLETION DATE:** August 18, 2004

The following actions are being taken by BNFL Inc. in response to Items 6 and 7 from Block # 10 of CBFO CAR No. 04-033 R/1.

Block 10, Action 6: "Provide objective evidence that the samples for the waste streams or waste stream lots were selected randomly based on information obtained during investigation of this condition adverse to quality."

5. BNFL Inc has submitted electronic files of the documentation used in the 3100m3 project as objective evidence in response to Block 10, item 6. This documentation includes EDF 909 R/3 "Transuranic Waste Sampling Plan for the Idaho National Engineering and Environmental Laboratory", and the Characterization Technical Reports supporting the Hazardous waste code assignments, INEEL/EXT-01-00015 Revision 2 "Hazardous Waste Code Determination for First/Second-Stage Sludge Waste Stream (IDCs 001, 002, 800)" and INEEL/EXT-01-00517 Revision 0, "Characterization of Rocky Flats Plant Building 374 Sludge Waste Stream (IDCs 007, 803, and 807)".

Sections that describe the INEEL Sampling Plan are referred to herein.

- EDF 909 Revision 3, "Transuranic Waste Sampling Plan for the Idaho National Engineering and Environmental Laboratory"  
Refer to Section 1 "Introduction" for description of the documented INEEL Sampling Plan. This section includes Table 1 that listed the Waste Stream Descriptions. First/Second Stage Sludge and Building 374 Sludge are described on this Table.

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**Investigative, Root Cause and Preventive Actions (continued)**

- INEEL/EXT-01-00015, Revision 2 (May 2001) "*Hazardous waste code determination for First/Second Stage Sludge Waste Stream (IDCs 001, 002, 800)*"  
Refer to the sections listed below for specific discussions related to sampling for the First/Second Stage Sludge.
  - Pg. 1-1, Section 1.1 *Scope*
  - Pg. 1-4, Section 1.4 *Waste Analysis Plan Compliant Sampling and Analysis Data*
  - Pg. 2-1, Section 2.2 *Waste Stream Identification*
  - Pg. 4-8, Section 4.3 *Waste Analysis Plan Compliant Drum Analysis/Confirmation of Hazardous Waste Codes Assigned*
- INEEL/EXT-01-00517, Revision 0 (July 2001) "*Characterization of Rocky Flats Plant Building 374 Sludge Waste Stream (IDCs 007, 803, 807)*"  
Refer to the sections listed below for specific discussions related to sampling for the Building 374 Sludge.
  - Pg. 1-1, Section 1.1 *Scope*
  - Pg. 1-3, Section 1.2 *Background*
  - Pg. 1-4, Section 1.3 *Preliminary Data Usage*
  - Pg. 5-1, Section 5 *Phase II WAP Compliant Drum Analysis/Confirmation of Hazardous Waste Numbers Assigned*

**ACTION 5 COMPLETION DATE: August 10, 2004**

**Block 10, Action 7: "Implement an effective formal system of controls to ensure that drums only from approved lots can be made available for shipment."**

Note: A Remedial Action Plan addressing Block 10, Action 7 has been submitted separately from this Corrective Action Plan to ensure that AMWTP has formally implemented the necessary controls to ensure that only waste containers from the approved populations of Waste Streams BNINW216 and BNINW218 are made available for shipment. These controls shall remain in effect until the formal revisions to the controlling Management Procedures have been approved and issued, as part of the BNFL actions identified to prevent recurrence.

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### Investigative, Root Cause and Preventive Actions (continued)

In addition to addressing Block 10, Action 7 from CAR 04-033 R/1, the following corrective actions will address the condition identified by CBFO CAR 04-032.

6. BNFL Inc. is evaluating AMWTP implementing procedures that require change to address this condition adverse to quality and positively define waste stream populations and control the certification of containers against populations that have been subjected to random sample selection. These procedure changes will address the preventive actions to be implemented to resolve this condition adverse to quality as well as the corrective actions taken to resolve the condition adverse to quality identified in CBFO CAR 04-032. These procedure changes will be submitted to CBFO for review and approval.
  - a) MP-TRUW-8.11, "Data Reconciliation" will be revised to incorporate procedural controls to verify characterized containers being prepared for Lot reconciliation are identified in approved waste stream populations prior to release for reconciliation.
  - b) MP-TRUW-8.14, "Preparation of Waste Stream Profile Forms" will be revised to incorporate steps to identify the defined waste stream population to ensure control of any containers not bounded by an approved Waste Stream Profile that would require additional sampling to meet the WIPP WAP.
  - c) MP-TRUW-8.25, "RCRA Statistical Sampling" will be revised to incorporate procedural steps for defining waste stream populations and subsequent Lots into approved sampling plans.

**ACTION 6 COMPLETION DATE:** August 18, 2004